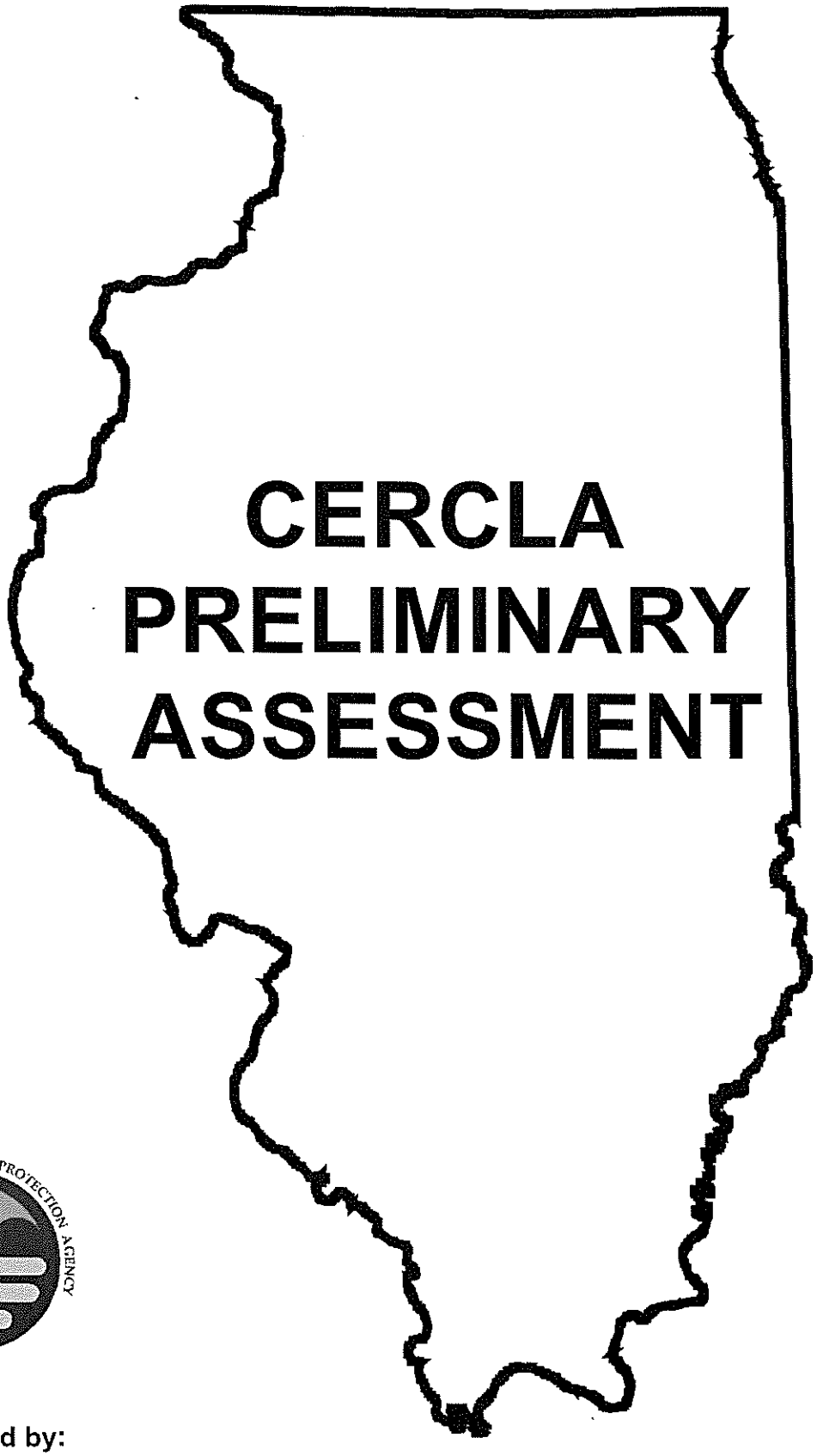
COOK COUNTY
SAXON METAL COMPANY
LANSING
SF/HRS



CERCLA PRELIMINARY ASSESSMENT

Prepared by:
Office of Site Evaluation
Division of Remediation Management
Bureau of Land

PRELIMINARY ASSESSMENT

for:

SAXON METALS COMPANY
LANSING, ILLINOIS

PREPARED BY:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
DIVISION OF REMEDIATION MANAGEMENT
OFFICE OF SITE EVALUATION

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SIGNATURE PAGE

Title: CERCLA Preliminary Assessment for Saxon Metals

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1.0 Introduction

On February 22, 2012, the Illinois Environmental Protection Agency's (Illinois EPA) Office of Site Evaluation was tasked by the United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Preliminary Assessment at the Saxon Metals Company site in Lansing, Cook County, Illinois. The site is located at 17730 Chicago Avenue, in Lansing, Cook County, Illinois. The geographic coordinates for the site (at the intersection of Chicago Avenue and Pennsylvania Railroad) are 41.5744° latitude, and -87.5442° longitude. Figure 1 of this report shows the general location of the facility.

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Part 300) requires that a Preliminary Assessment be performed on all sites entered into the Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS), U.S. EPA's inventory of hazardous waste sites.

A Preliminary Assessment is an early step in the Superfund process that utilizes a limited-scope investigation and collects readily available information. The Preliminary Assessment distinguishes between sites that pose little or no threat to human health and the environment and those that require further investigation. The Preliminary Assessment also supports emergency response and removal activities, fulfills public information needs, and generally furnishes appropriate information about the site early in the assessment process.

If the findings of the Preliminary Assessment determine that further investigation is warranted, the site will continue to progress through the Superfund evaluation process and receive a Site Inspection. The Site Inspection will provide necessary information that will help determine if the site qualifies for possible inclusion on the National Priorities List (NPL) or should be archived and receive a No Further Remedial Action Planned (NFRAP) qualifier. At any time throughout the Superfund evaluation process, the site may be assigned NFRAP status, be referred to another state or federal clean-up program, or recommended for another action. The Preliminary Assessment is performed under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) commonly known as Superfund.

2.0 Site Background

2.1 Site Description

Saxon Metals was located at 17730 Chicago Avenue on the Southwest corner of the intersection of Chicago Avenue and Pennsylvania Railroad, in Lansing, Cook County, Illinois. (The railroad tracks are no longer present and the railroad bed has been converted to a bike path). According to the local historical society Saxon Metals occupied this location from 1963 through 1967. They also found that prior to this (1946 through 1962) Superior Metals Reclaiming Company occupied this general location and was listed at 17700 Chicago Avenue, which correlates with the southwest corner of the intersection of Chicago Avenue and Pennsylvania Railroad.

The geographic coordinates for the site (at the intersection of Chicago Avenue and Pennsylvania Railroad) are 41.5744° latitude, and -87.5442° longitude. Figure 1 of this report shows the general location of the facility.

Aerial photographs (IDOT) from 1939-1975 were rectified and analyzed using a desktop Geographic Information Systems (GIS) produced by ESRI. Based on the years of operation and building placements, the location of the site was confirmed to be southwest of the intersection of Chicago Avenue and the railroad. A 1957 aerial photograph from IDOT is the first photographic evidence of buildings in this area and can be seen in Figure 2.

Immediately adjoining to the south and west of the Saxon Metals site is an area once owned by the Illinois Brick Company. In accordance with aerial photographs from the era, clay was excavated from the property owned by Illinois Brick Company and used in the brick-making process. The pit that remained after the brick company shut down its operations was used to dispose of refuse or other material from the village of Lansing and in all likelihood, Superior Metals and later Saxon Metals. This 80 acre pit is referred to as the "clay-hole" was the subject of an article in The Hammond Times from August, 1966. The newspaper article noted that residents nearby the clay-hole were complaining of odors emanating from the hole. The clay-hole was owned and operated by Robert A. Fritz of Lansing, Illinois until 1963 when he gave it to his son, James Fritz.

The Pennsylvania Railroad was located adjacent to the site, toward the northeast. A spur track was built off of this railroad and identified in a 1957 aerial photograph (IDOT). The railroad was eventually converted into a bike path. On the other side of the railroad bed/bike path is Gus Bock Park and Knights of Columbus Lake. Property to the North of site appears to be industrial. LeBunnies Child Care Learning Center, a daycare and pre-school facility is located approximately 300 feet south of the site at 17750 S. Chicago Avenue. Large, residential subdivisions generally surround the site area, approximately 1000-1500 feet away.

The parcel believed to be occupied by Saxon Metals is now occupied by American Cast Products, Inc. Beverly Foundry and Precision Machining which has a mailing address of 17730 Chicago Avenue. Remarkably, a separate parcel and building complex immediately to the south known as Techstrand shares the same mailing address, 17730 Chicago Avenue. The former Saxon Metals site property is completely fenced by a combination of large concrete blocks, cyclone metal fence as well as wooden fence. The property is relatively barren of vegetation and contains several dilapidated vehicles, large metal pieces and assorted scrap. No evidence of waste from historical smelting activities was identified.

2.2 Site History

According to the South Suburban Genealogical Society, Saxon Metals appears in the local telephone directory from 1963 through 1967. As stated earlier in this report, prior to 1963 it appears that Superior Metals Reclaiming Company occupied this

same property. Sanborn Fire Insurance maps of Lansing, Illinois did not include any information about Saxon Metals.

A 10 year lease agreement from May 1, 1945 to April 30, 1955 indicates that a one-acre portion of property was leased to Superior Metals Reclaiming Company from Robert A. Fritz of Lansing, Illinois. Fritz was owner and operator of a local "clay-hole" that was located on adjoining property to the south and west of the site. The aforementioned lease agreement indicates that Superior Metals Reclaiming Company had the right to dispose of its refuse or other material in this clay-hole. Fritz had also given permission to the Village of Lansing, Illinois to dump village garbage and refuse in the dump/pit. Superior Metals Reclaiming Company had first right to buy the property, or at the end of the lease, had the option to renew the lease for an additional ten years from1955 to 1965. It is unclear what happened at the end of the first lease agreement; however, Superior Metals Reclaiming Company was still in operation on the site until at least 1963. After 1963, Saxon Metals operated from this location until at least 1967.

2.3 Regulatory Status

Based upon available file information the Saxon Metals site does not appear to be subject to Resource Conservation and Recovery Act (RCRA) corrective action authorities. Information currently available does not indicate that the site is under the authority of the Atomic Energy Act (AEA), Uranium Mine Tailings Action (UMTRCA), or the Federal Insecticide Fungicide or Rodenticide Act (FIFRA).

3.0 Field Inspection Activities

3.1 Field Inspection

Field reconnaissance was conducted in the area of the site on July 5, and August 8, 2012. Several properties surrounding the original address of the facility (the intersection of Chicago Avenue and Pennsylvania Railroad) were inspected and personnel associated with the facilities were interviewed about their current operations and knowledge of property history. There are currently no physical features of the area surrounding the intersection of Chicago Avenue and Pennsylvania Railroad that indicate the obvious location of the smelter. No piles of slag or related material were identified in the area surrounding the site.

On August 8, Illinois EPA Office of Site Evaluation staff conducted X-Ray Fluorescence (XRF) analysis of soils near several residential properties in the area. The scope of the field-based site characterization was limited and was designed primarily to quickly determine if historical operations at Saxon Metals impacted right-of-ways near the facility and nearby residences. Soil analysis by XRF was not conducted in the area immediately surrounding the property believed to be previously occupied by Saxon Metals because right-of-ways to the southeast were covered by asphalt. Soil analysis by XRF was conducted at seven locations to the southeast and south of the property believed to be previously occupied by Saxon Metals. Depths of the soil analysis by XRF ranged from the soil surface to three inches below surface. Geologic material encountered was largely a light brown

sandy loam. Small pieces of slag were mixed in with the soil, in a low percentage at one location, XRF 1 which was conducted in front of the Techstrand facility.

Several metals often identified around smelting operations: copper, zinc, cadmium, and lead had their highest concentrations at locations closest to the facility. One XRF location, XRF 7 was selected to represent background concentrations for the area. The XRF location, XRF 7 was selected to represent background because of its location (away from apparent industrial activities) and its low metal concentrations. Four metals, copper, zinc, cadmium, and lead were identified during the investigation at concentrations greater than three times background concentrations. Zinc was identified most often at concentrations greater than three times background, in six of nine locations. Copper, zinc, and lead were identified at concentrations greater than three times background at two out of nine locations. The lead concentrations ranged from 18 parts per million to 214 parts per million. Cadmium was only identified in one location at concentrations greater than three times background. The locations where XRF analysis was conducted on soil are included on Figure 3 of this report. Table 1 attached to this report includes the XRF analysis results.

4.0 Pathway Discussions

4.1 Groundwater

No groundwater samples were collected during the Pre-CERCLIS Screening Assessment or the Preliminary Assessment. The Village of Lansing buys its water from the city of Hammond, Indiana, who utilizes Lake Michigan as its water source. According to Village officials, residents and industry within the Village receive public water supply.

A review of an internal Oracle database maintained by the Illinois State Geological Survey identified groundwater wells located near the investigative area. Although everyone in the village is reportedly on a municipal water supply system, the most recent data available from ISGS indicates that there are 15 private wells within one mile of the site. There are several different types of private wells in the database maintained by ISGS, differentiated by use. Four of the 15 wells within one mile of the site were not designed for drinking water purposes. An additional well belongs to the Village and is not currently used for drinking water purposes. The nearest private well to the site is located approximately 2,500 feet towards the southeast.

4.2 Surface Water

There is no surface water located on the property that formerly housed Superior Metals Reclaiming. The site and surrounding area is flat with no discernable preferential pathways for surface water run-off. Storm water control systems in

association with 178th Street to the south, and 175th Street to north would control any run-ff in those directions. Any run-off that might occur towards the east would be intercepted by ditches along the railroad that also feed into Village's storm water control system.

4.3 Soil Exposure

The property formerly occupied by Saxon Metals was fenced. The nearest permanent resident is located approximately 180 feet to the southeast of the site. Soil analysis by XRF was conducted at nine locations to the southeast and south of the property believed to be previously occupied by Superior Metals Reclaiming. Metals were identified in concentrations greater than three times background in four of nine locations. Four metals, copper, zinc, cadmium, and lead were identified during the investigation at concentrations greater than three times background.

X-Ray Fluorescence analysis was not conducted at residential properties, but rather in right-of-ways in areas where residents were nearby. Only one location had slag present in the soil, so based on information currently available, it appears that elevated concentrations off site were due to aerial deposition, rather than residents or city workers using slag materials for fill or surface gravel.

Census data has been compiled and formatted for use in GIS applications by ESRI, a GIS software company. ESRI used demographic data from the "Census 2000 Summary File" represented by Census Block Centroids to generate data that can be

overlain onto maps for analysis (ESRI). In order to calculate population in areas surrounding the site, the ESRI census data was overlain onto a map from the region and queried based on distance from the site's boundary (Illinois EPA, GIS). Population data based on GIS analysis for areas surrounding the site is shown below. A total of 169,932 people are estimated to reside within four miles of the site (U.S. DOC; Illinois EPA, GIS).

Population within four miles of the site

Distance (mi)	Population [1]
On-Site	0
0 – ¼ mile	558
¼ - ½ mile	3592
½ - 1 mile	10849
1 mile – 2 miles	33256
2 miles – 3 miles	47833
3 miles – 4 miles	73875

1. Source: United States Department of Commerce, Economics and Statistics Administration, Bureau of Census; Illinois EPA, GIS.

4.4 Air Route

A portion of the site lacks vegetative cover. The lack of vegetation may enable particulate material to become suspended in the air during dry periods.

No data was collected during previous investigations to support the air pathway.

5.0 References

ESRI. ESRI Data & Maps 2002, An ESRI White Paper. Electronic Report at http://support.esri.com/index.cfm?fa=knowledgebase.whitepapers.viewPaper&PID=16&MetaID=1292. Accessed December 2007.

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United States Department of Commerce, Economics and Statistics Administration, Bureau of Census. Census 2000: Summary File 1. In: ESRI Data & Maps 2006 Data Update, http://www.esri.com/data/data-maps/overview.html. Accessed July, 2007

United States Environmental Protection Agency. Hazard Ranking System Guidance Manual. Office of Solid Waste and Emergency Response. EPA 540-R-92-026. Document No. PB92963377. November 1992.

FIGURE 1

Saxon Metal Company
17730 Chicago Avenue
Lansing, IL

FIGURE 2

Saxon Metals
1957 Aerial Photo

FIGURE 3

Saxon Metals Company
Aerial Photo with XRF Analysis Locations

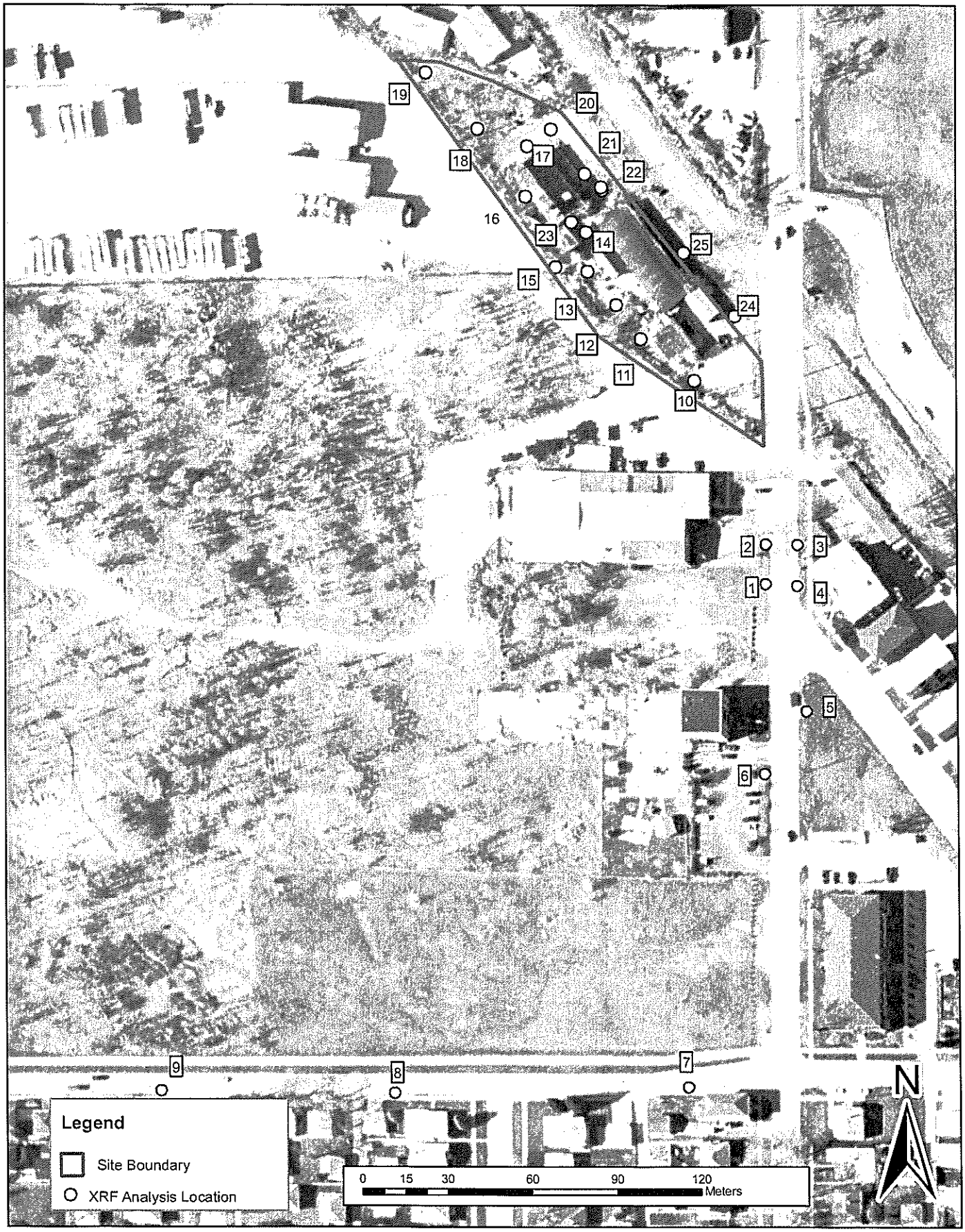

Table 1
X-Ray Flourescence Analysis of Subsurface Soils

			Metal Concentrations in Parts Per Million																									
			Cr		Mn		Co		Ni		Cu		Zn		As		Se		Ag		Cd		Sb		Ba		Hg		Pb
	Residential Benchmarks [1]		230		3700		4700		1600		2900		23000		11.3		390		390		78		31		5500		10		400
XRF Location Number	Date	Depth in Inches																										
1	8/8/2012	Surface	<	135		559	<	199	<	70		**230**		**724**	<	20	<	6	<	55		106	<	132	<	363	<	18		88
1	8/8/2012	2	<	161		533		254	<	73		135		**757**	<	21	<	6	<	58		121	<	142	<	416	<	17		101
1	8/8/2012	3	<	177		576		281	<	74		**252**		**1203**	<	27	<	6	<	54		108	<	134	<	392	<	17		**214**
2	8/8/2012	Surface	<	173		546	<	205	<	67		185		668	<	19	<	5	<	58		136	<	141	<	425	<	17		84
2	8/8/2012	1	<	172		653	<	199	<	74		90		**625**	<	14	<	5	<	57		**375**	<	144	<	388	<	16		27
3	8/8/2012	Surface	<	148		387		219	<	71		47		**475**	<	19	<	5	<	53	<	68	<	127	<	378	<	16		113
3	8/8/2012	1	<	170		373	<	229	<	70		88		**370**	<	21	<	6	<	60	<	77	<	144	<	439	<	16		98
4	8/8/2012	Surface	<	181		286		345	<	77		95		**377**	<	20	<	6	<	59	<	76	<	146	<	412	<	17		81
4	8/8/2012	1	<	150		274	<	220	<	75		90		**321**	<	19	<	5	<	59	<	75	<	144	<	423	<	19		79
5	8/8/2012	Surface	<	155		404		428	<	69		57		**326**	<	19	<	5	<	54	<	69	<	130	<	410	<	16		92
5	8/8/2012	1		231		257	<	231	<	73	<	39		238	<	19	<	5	<	57	<	73	<	139	<	436	<	15		95
6	8/8/2012	Surface	<	142		463		379	<	76		56		**304**	<	19	<	5	<	55	<	72	<	139	<	435	<	14		87
6	8/8/2012	1	<	173		339	<	254	<	82	<	43		198	<	18	<	6	<	59	<	75	<	144	<	454	<	16		55
6	8/8/2012	2	<	180		599		448	<	77		48		213	<	18	<	5	<	60	<	78	<	145	<	492	<	17		71
7	8/8/2012	Surface	<	152		353		295	<	66	<	39		87	<	15	<	5	<	58	<	74	<	140	<	384	<	13		41
7	8/8/2012	1	<	159		299		312	<	77	<	40		77	<	14	<	7	<	58	<	74	<	142	<	455	<	18		44
7	8/8/2012	2	<	128		313		361	<	67	<	32		89	<	13	<	5	<	52	<	66	<	128	<	384	<	15		36
8	8/8/2012	Surface	<	149		195	<	222	<	69	<	39		88	<	14	<	5	<	58	<	75	<	141	<	409	<	15		29
8	8/8/2012	1.5	<	309	<	368	<	529	<	168	<	85	<	59	<	37	<	14	<	136	<	175	<	335	<	1026	<	23		52
9	8/8/2012	Surface	<	131		452		282	<	65	<	37		113	<	13	<	5	<	53	<	67	<	124	<	333	<	17		32
9	8/8/2012	2	<	137		693		331	<	74	<	35		87		13	<	6	<	55	<	70	<	133	<	415	<	15		18
10	10/15/2012	Surface		435.7		320.6	<	95.9	<	75.3		**342.1**		**851**	<	16.9		11.7		NA		NA		NA		NA		28.9		**172**
11	10/15/2012	Surface		542		**3604**	<	268		324		1886		**6657**	<	**55.1**	<	18.9		NA		NA		NA		NA		**54.6**		**927**
12	10/15/2012	Surface		388.1		**3754**	<	230		381		**2287**		**8727**		**79.9**		**20.6**		NA		NA		NA		NA		**51.8**		**1225**
13	10/15/2012	Surface	<	138.7	<	135.8	<	106		114		**2389**		**1905**	<	30.1	<	10.4		NA		NA		NA		NA		17		**582**
14	10/15/2012	Surface	<	108.5	<	102.4	<	87.7	<	60.5		**1124**		**2077**	<	17.6	<	8.04		NA		NA		NA		NA		13.3		**269**
15	10/15/2012	Surface	<	168.4		676.4	<	140		231		**503.6**		**2247**	<	20.1	<	12.1		NA		NA		NA		NA		**39.6**		**198**
16	10/15/2012	Surface		229.3		549.8	<	139		169		**1236**		**4226**	<	25.3	<	11.2		NA		NA		NA		NA		44		**398**
17	10/15/2012	Surface		229.7		501.4	<	142		157		**1446**		**8860**	<	26.9	<	10		NA		NA		NA		NA		18.7		**540**
18	10/15/2012	Surface	<	230		420	<	164	<	121		**1307**		**1113**	<	30.5	<	16.7		NA		NA		NA		NA		22.2		**206**
19	10/15/2012	Surface		188.1		764.6	<	140		128		**869.9**		2781		25.9	<	9.83		NA		NA		NA		NA		12.3		**462**
20	10/15/2012	Surface		173.1		334.9	<	116		131		**678.1**		**2708**	<	19.8		13.5		NA		NA		NA		NA		26.1		**191**
21	10/15/2012	Surface		217.7		650.6	<	116		171		**1138**		**8987**	<	23		13.1		NA		NA		NA		NA		32.1		**345**
22	10/15/2012	Surface	<	170.5		646.9	<	134		149		**1547**		**6533**	<	31.4		**16.2**		NA		NA		NA		NA		18.7		**516**
23	10/15/2012	Surface		**624.3**		411.7	<	192		147		**1331**		**6062**	<	29.6	<	13.2		NA		NA		NA		NA		28.5		**396**
24	10/15/2012	Surface	<	176.8		475.7	<	145		110		**483**		**3632**	<	20.7	<	12.5		NA		NA		NA		NA		19.5		**156**
25	10/15/2012	Surface	<	122.2		311	<	110	<	64.9		**405.3**		**680**	<	21.9	<	8.26		NA		NA		NA		NA	<	9.93		**382**

Residential Benchmarks are residential corrective action objectives for soil exposure (lowest of injestion or inhalation) from Illinois Administrative Code Part 742.
Location 7, selected as background, based on results and geology